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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,959	01/29/2002	Alistair Neil Coles	1509-269	3543

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

SELLERS, DANIEL R

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/057,959	COLES ET AL.	
	Examiner	Art Unit	
	Daniel R. Sellers	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-21 is/are allowed.
- 6) ☒ Claim(s) 1-11, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 16-17, filed January 11, 2007, with respect to claims 1-23 have been fully considered and are persuasive. The rejections of claims 1-23 has been withdrawn.
2. However, upon further examination claims 1-11, 22, and 23 are rejected under 35 USC 101.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

4. **Claims 11 and 23** are objected to because of the following informalities:
5. Regarding claim 11, the claim recites in the amendment on page 6, line 9 "the spatially processed data (b)". In view of claims 1, 12, and 20, the claim is believed to seek protection for "the positional data (b)" in this claim at the aforementioned line. The Office interprets this claim to read as suggested.
6. Regarding **claim 23**, the claim is written in a manner that the preamble is hard to distinguish from the body of the claim, which makes it difficult to understand the subject matter for which patent protection is sought. The Office interprets claim 23 as such:

"A source computer arrangement for controlling an output arrangement of a playing terminal including plural different audio output transducers, the different transducers being located at different positions, the terminal being arranged to be

connected to the transducers so sounds originating at the different transducers are adapted to be perceived by a user of the terminal as originating from different directions, the source computer arrangement including:

plural audio sources adapted to be coupled to the terminal via a data link, each of the audio sources being associated with sounds perceived by the user as originating from the different directions, each of the audio sources including (a) audio data relating to aural content of an audible sound or track perceived by the user as originating from one of the directions and (b) positional data indication indicative of the direction from which the user perceives the aural content as originating, the audio sources being arranged to transmit to the terminal via the link (i) the audio data at a first bit rate, and (ii) the positional data at a second bit rate that exceeds the first bit rate."

7. Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claims 1-11, 22, and 23** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. **Claim 1** is seemingly a patentable apparatus, however, it is in reality seeking patent protection of the computer program as evidenced by claim 20. It is non-statutory because it lacks a practical application by physical transformation. The claim language uses language such as "to cause transducers... to derive aural outputs...", however

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there is no positive recitation of a practical application, wherein a useful, concrete, and tangible result is produced (i.e. transducers output, or transmit, sound).

11. **Claims 2-9 and 22** are non-statutory because they depend on claim 1.

12. **Claim 10** is non-statutory for similar reasons as claim 1. A practical application by physical transformation, and a useful, concrete, and tangible result is not produced.

13. **Claim 11** is non-statutory for similar reasons as claim 1. The claim recites that the transducers "can derive", but there is no positive recitation of a practical application, and a useful, concrete, and tangible result is not produced.

14. **Claim 23** is non-statutory for similar reasons as claim 1. The claim recites that the audio sources are "arranged to transmit", but there is no positive recitation of a practical application (i.e. the positive recitation of transmitting is not realized)

Furthermore a useful, concrete, and tangible result is not produced, in part because a practical application is not claimed.

Allowable Subject Matter

15. **Claims 12-21** are allowable if the 35 USC 101 rejections are overcome.

16. The following is a statement of reasons for the indication of allowable subject matter:

17. Regarding **claim 12**, the prior art of record does not teach or suggest the feature of transmitting positional data at a higher bit rate than the transmission of audio data, wherein an audio component comprises both the positional data and the audio data. The prior art teaches placing a priority on select audio data, however it does not teach the separation of bit-rates between the positional data, which corresponds to a

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perceived location in space relative to speakers, and the audio data, which corresponds to the aural content to be perceived. The prior art also does not provide a suggestion to do so.

18. **Claims 13-19 and 21** are allowable because they depend on claim 12.

19. **Claim 20** is allowable for the same reason as claim 12.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dutkovich, USPN 4,176,252 – Col. 12, lines 23-48, are directed towards individual control of audio tracks in a multi-track three dimensional audio space;

Zhou, USPN 5,500,673 - teaches bit-rates in telecommunication devices (col. 1, lines 20-56 and col. 14, lines 22-26);

Nakazawa, USPN 5,715,317 - teaches transmitting positional data (i.e. filter coefficients) over a computer bus (i.e. a data link) (col. 6, line 65 - col. 7, line 8);

Mukojima et al., USPN 5,768,393 - teaches positional data of a sound generated from a polygon (abstract and Fig. 4);

Hassan et al., USPN 5,974,376 - teaches the transmission of extra details of an audio signal when prompted (see Summary of the Invention);

Connor et al., USPN 6,011,851 - teaches spatialized audio, wherein different sound sources have different priorities (see Summary of the Invention); and

Yamazaki, USPN 6,343,130 - teaches motivation for different bit rates in a system performing sound localization (col. 2, lines 38-58).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 571-272-7528. The examiner can normally be reached on Monday to Friday, 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DRS


SINH TRAN
SUPERVISORY PATENT EXAMINER